

CLAIMS

1. A fuel cell comprising:
a fuel electrode and an oxidant electrode;
an absorbent disposed on the oxidant electrode side; and
an absorbent moving part movably supporting the absorbent
5 in a direction such that the absorbent approaches to and departs
from the oxidant electrode.
2. The fuel cell as claimed in claim 1, wherein the absorbent
moving part moves the absorbent between a position where at
least part of the absorbent is in contact with the oxidant
electrode and another position where said at least part of the
5 absorbent is departed from the oxidant electrode.
3. The fuel cell as claimed in claim 1, wherein the absorbent
moving part supports the absorbent such that the absorbent is
disposed opposing to the oxidant electrode surface when the
absorbent is moved in a direction approaching to the oxidant
5 electrode.
4. The fuel cell as claimed in claim 1, further comprising an
oxidant path on the oxidant electrode surface in which the
absorbent is disposed.

5. The fuel cell as claimed in claim 4, further comprising a discharge promoting section for promoting discharge of the oxidant in the oxidant path.

6. The fuel cell as claimed in claim 4, further comprising a humidity measuring section for measuring humidity in the oxidant path, wherein the absorbent moving part moves the absorbent in accordance with the humidity measured by the humidity measuring section.

7. The fuel cell as claimed in claim 4, further comprising a switching mechanism for switching closing or opening of the oxidant path.

8. The fuel cell as claimed in claim 1, further comprising a drying section for drying the absorbent.

9. The fuel cell as claimed in claim 1, further comprising a temperature measuring section for measuring a temperature in the oxidant path, wherein the absorbent moving part moves the absorbent in accordance with the temperature measured by the temperature measuring section.

10. The fuel cell as claimed in claim 1 further comprising:
a temperature measuring section for measuring a

temperature;

a detecting section for detecting an output of the fuel cell;

5 a memory section for storing a reference value of the output determined in accordance with the temperature; and

a judging section for comparing the output detected by the detecting section with the reference value stored in the memory section to judge whether or not the output reaches the reference value based on the temperature measured by the temperature measuring section,

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wherein the absorbent moving part moves the absorbent in a direction such that the absorbent approaches to the oxidant electrode, if the output has not reached the reference value.

11. The fuel cell as claimed in claim 1, further comprising:

a detecting section for detecting an output of the fuel cell;

an alarm output section; and

a control section for instructing the detecting section to detect the output of the fuel cell after the absorbent is moved by the absorbent moving part in a direction the absorbent approaches to the oxidant electrode, and for instructing the alarm output section to output the alarm if the output of the fuel cell is has not been improved.

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12. The fuel cell as claimed in claim 1, wherein the absorbent moving part moves or stops the absorbent in accordance with an

operation or an operation stop, respectively.

13. The fuel cell as claimed in claim 1, wherein the fuel cell is a direct type in which liquid fuel is directly supplied to the fuel electrode.

14. The fuel cell as claimed in claim 1, wherein a plurality of the oxidant electrodes are disposed on a plane.

15. A method of operating a fuel cell including a fuel electrode and an oxidant electrode comprising the steps of:

moving an absorbent disposed on the oxidant electrode side so that the absorbent approaches the oxidant electrode; and

5 moving the absorbent so that the absorbent departs from the oxidant electrode.

16. The method of operating the fuel cell as claimed in claim 15, wherein at least part of the absorbent is in contact with the oxidant electrode in the approaching step, and the oxidant electrode is departed from the at least part of the absorbent in
5 the departing step.

17. The method of operating the fuel cell as claimed in claim 15, wherein the step of moving the absorbent so that the absorbent approaches to the oxidant electrode is conducted

during stop of fuel cell operation, and the step of moving the
5 absorbent to be departed from the oxidant electrode is conducted
at start of the fuel cell operation.

18. The method of operating the fuel cell as claimed in claim
15, wherein the step of moving the absorbent to be approached
to the oxidant electrode is conducted before start of fuel cell
operation, and the step of moving the absorbent to be departed
5 from the oxidant electrode is conducted at start of the fuel cell
operation.

19. The method of operating the fuel cell as claimed in claim
15, further comprising a step of drying the absorbent.

20. The method of operating the fuel cell as claimed in claim
15 further comprising the steps of:

detecting an output of the fuel cell; and

5 selecting the steps of moving the absorbent to be approached
to the oxidant electrode and of moving the absorbent to be
departed from the oxidant electrode in accordance with the
output detected in the output detecting step.

21. The method of operating the fuel cell as claimed in claim
15 further comprising the steps of:

detecting an output of the fuel cell; and

judging whether or not the detected output reaches a
5 reference value after the step of moving the absorbent to be
approached to the oxidant electrode followed by detection of the
output of the fuel cell; and

outputting an alarm when the output has not been
improved in the judging step.